Supreme Court, U.S.
FILED
991442 FEB 2 8 2000
OFFICE OF THE CLERK

No. _____

In The

Supreme Court of the United States

CITIZENS FOR BALANCED TRANSPORTATION, ET AL.,

Cross-Petitioners,

v.

CAROL M. BROWNER, ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY, ET AL.,

Cross-Respondents.

On Cross-Petition For A Writ Of Certiorari To The United States Court Of Appeals For The District Of Columbia Circuit

CROSS-PETITION FOR A WRIT OF CERTIORARI

ROBERT E. YUHNKE*
2910 County Road 67
Boulder, CO 80303
(303) 499-0425

JENNIFER B. ANDERSON
TIMOTHY M. HOGAN
ARIZONA CENTER FOR LAW IN THE PUBLIC INTEREST
202 E. McDowell Rd., Suite 153
Phoenix, AZ 85004-4533
(602) 258-8850

Counsel for Cross-Petitioners Citizens for Balanced Transportation, et al.

**Counsel of Record*

COCKLE LAW BRIEF PRINTING CO., (800) 225-6964
OR CALL COLLECT (402) 342-2831

43pp

QUESTIONS PRESENTED

1. Whether the court of appeals erred by failing to remand to U.S. EPA its primary 24-hour national ambient air quality standard for PM2.5 because the agency failed to "articulate a satisfactory explanation for its action" when it set a standard that allows many thousands of premature deaths and other serious adverse health effects.

2. Whether the court of appeals erred by failing to remand to U.S. EPA its primary 24-hour national ambient air quality standard when the evidence adduced by the agency demonstrates that the standard will not protect public health with an adequate margin of safety as required by § 109(b)(1) of the Clean Air Act.

3. Whether the court of appeals erred by holding that U.S. EPA may establish secondary national ambient air quality standards for PM2.5 that fail to protect against all known or anticipated adverse effects on public welfare, including visibility.

RULE 29.6 DISCLOSURE, AND LIST OF PARTIES BELOW

Cross-Petitioners Citizens for Balanced Transportation, Richard Romero (on behalf of himself and his minor son, Richard Romero, Jr.), David Matusow, Brian McCarthy, James Bassage and Michael Gregory ("CBT") were petitioners in the court of appeals. CBT has no parent companies or nonwholly owned subsidiaries, and there is no parent or publicly held company owning stock in CBT.

The following were parties in one or both of the two consolidated proceedings addressed by the original petitions for certiorari (*American Trucking Assns. v. USEPA*, D.C. Cir. No. 97-1440 and consolidated cases; and *American Trucking Assns. v. USEPA*, D.C. Cir. No. 97-1441 and consolidated cases):

Alliance of Automobile Manufacturers (formerly American Automobile Manufacturers Association)
American Farm Bureau Federation
American Forest & Paper Association
American Iron and Steel Institute
American Lung Association
American Petroleum Institute
American Portland Cement Alliance
American Public Power Association
American Road and Transportation Builders Association
American Trucking Associations, Inc.
Appalachian Power Company
Atlantic City Electric Company
Baltimore Gas and Electric Company
James Bassage
Burns Motor Freight, Inc.
Carolina Power & Light Company
Centerior Energy Corporation

RULE 29.6 DISCLOSURE, AND LIST OF PARTIES BELOW – Continued

Central and South West Services, Inc.
Central Hudson Gas & Electric Corporation
Central Illinois Light Company
Central Illinois Public Service Company
Central Power and Light Company
Chamber of Commerce of the United States
Chemical Manufacturers Association
CINergy Corporation
Citizens for Balanced Transportation
Cleveland Electric Illuminating Company
Columbus Southern Power Company
ComEd Company
Consumers Energy Company
Dayton Power & Light Company
Delmarva Power & Light Company
Detroit Edison Company
Duke Energy Company
Duquesne Light Company
Edison Electric Institute
Equipment Manufacturers Institute
FirstEnergy Corporation (A merger of Centerior Energy Corporation and Ohio Edison Company)
Florida Power Corporation
Garner Trucking, Inc.
Genie Trucking Line, Inc.
Gloucester Company, Inc.
Michael Gregory
Idaho Mining Association
Illinois Power Company
Indiana Michigan Power Company
Indianapolis Power & Light Company
Jacksonville Electric Authority
Judy's Bakery, Inc.
Kansas City Power & Light Company
Kennecott Energy and Coal Company

RULE 29.6 DISCLOSURE, AND LIST OF PARTIES BELOW – Continued

Kennecott Holdings Corporation
Kennecott Services Company
Kentucky Power Company
Kentucky Utilities Company
Louisville Gas and Electric Company
Madison Gas and Electric Company
Commonwealth of Massachusetts
David Matusow
Brian McCarthy
Meridian Gold Company
State of Michigan
Midwest Ozone Group
Minnesota Power
Monongahela Power Company
Montaup Electric Company
National Association of Home Builders
National Association of Manufacturers
National Automobile Dealers Association
National Coalition of Petroleum Retailers
National Indian Business Association
National Mining Association
National Paint and Coatings Association
National Petrochemical & Refiners Association
National Rural Electric Cooperative Association
National Small Business United
National Stone Association
Nevada Mining Association
State of New Jersey
Newmont Gold Company
Niagara Mohawk Power Corporation
Non-Ferrous Founders' Society
Northern Indiana Public Service Company
Oglethorpe Power Corporation
State of Ohio
Ohio Edison Company

RULE 29.6 DISCLOSURE, AND LIST OF PARTIES BELOW – Continued

Ohio Mining and Reclamation Association
Ohio Power Company
Ohio Valley Electric Corporation
Oklahoma Gas & Electric Company
Otter Tail Power Company
PacifiCorp
Pennsylvania Power & Light Company
Phoenix Cement Company
Plains Electric Generation & Transmission Cooperative, Inc.
Potomac Edison Company
Potomac Electric Power Company
PP&L Resources
Public Service Company of New Mexico
Public Service Company of Oklahoma
Richard Romero
Salt River Project Agricultural Improvement and Power District
Small Business Survival Committee
South Carolina Electric & Gas Company
Southern Company
Southwestern Electric Power Company
Tampa Electric Company
Texas Gas Transmission Corporation
Toledo Edison Company
Union Electric Company
United Mine Workers of America, AFL-CIO
United States Environmental Protection Agency
Virginia Power
West Penn Power Company
West Texas Utilities Company
West Virginia Chamber of Commerce
State of West Virginia
Western Fuels Association
Wisconsin Electric Power Company

TABLE OF CONTENTS

Page

QUESTIONS PRESENTED i

RULE 29.6 DISCLOSURE LIST OF PARTIES BELOW.. ii

TABLE OF AUTHORITIES viii

DECISIONS BELOW 1

BASIS FOR JURISDICTION 1

CONSTITUTIONAL PROVISIONS, STATUTES AND REGULATIONS INVOLVED 2

STATEMENT OF THE CASE 2

I. Adverse Health Effects Of Fine Particles Are Not Prevented 4

A. EPA Is Silent About True Public Health Impact 6

B. Nondelegation Doctrine Is Satisfied By Clean Air Act § 109(b), But EPA's Decision Does Not Satisfy The Statutory Mandate To Protect Public Health 8

C. EPA's 24-Hour NAAQS Fails To Prevent Known Adverse Effects 12

1. Annual NAAQS Prevents Effects Demonstrated At 95 Percent Confidence Interval 13

2. 24-Hour NAAQS Allows Adverse Effects Demonstrated At 95 Percent Confidence Level 11

3. Unregulated Low- To Mid-Concentration Days Represent Most Of The Health Risk 15

TABLE OF CONTENTS – Continued

Page

4. Unregulated Single-Day Exposures Causes Adverse Effects 17

D. EPA Articulated No Reational Basis For The 24-Hour Standard 19

II. EPA Established Secondary PM2.5 NAAQS At Levels That Fail To Protect Against Adverse Visibility Effects 22

REASONS FOR GRANTING THE WRIT 25

I. THOUSANDS OF LIVES AND THE HEALTH OF MANY TENS OF THOUSANDS MORE ARE AT STAKE 25

II. THE AGENCY ERROR HERE IS GLARING AND UNCONSCIONABLE 25

III. THE COURT OF APPEALS' RULING CONCERNING THE SECONDARY PM2.5 NAAQS PRESENTS AN IMPORTANT QUESTION THAT WAS ERRONEOUSLY DECIDED BELOW AND SHOULD BE REVIEWED BY THIS COURT 27

CONCLUSION 30

APPENDIX ..... App. 1

TABLE OF AUTHORITIES

Page

CASES

Alabama Power Co. v. EPA, 40 F.3d 450 (D.C. Cir. 1994) 30

American Lung Ass'n v. EPA, 134 F.3d 388 (D.C. Cir. 1998) 9, 22, 26

American Petroleum Inst. v. Costle, 665 F.2d 1176 (D.C. Cir. 1981) 9

Burlington Truck Lines v. United States, 371 U.S. 156 (1962) 7

Ethyl Corp. v. EPA, 541 F.2d 1 (D.C. Cir. 1976) 13

Johnson v. S.E.C., 87 F.3d 484 (D.C. Cir. 1996) 28

Lead Industries Ass'n, Inc. v. EPA, 647 F.2d 1130 (D.C. Cir. 1980) 9, 10, 11

Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins., 463 U.S. 29 (1983) 7, 16, 21, 26

Negonsott v. Samuels, 507 U.S. 99 (1993) 27

STATUTES

Clean Air Act § 108, 42 U.S.C. § 7408 ..... 2, 11

Clean Air Act § 109, 42 U.S.C. § 7409 ..... *passim*

Clean Air Act § 169A, 42 U.S.C. § 7491 ..... 2, 23, 29

Clean Air Act § 302, 42 U.S.C. § 7602 ..... 2, 22, 28

Clean Air Act § 307, 42 U.S.C. § 7607 ..... 4, 9

TABLE OF AUTHORITIES – Continued

Page

REGULATION

40 C.F.R. § 50.7 ..... 2, 5, 17

LEGISLATIVE HISTORY

Legislative History of the Clean Air Act of 1970 10

FEDERAL REGISTER

61 Fed. Reg. 65,716 (December 13, 1996) 5, 13, 14, 16, 17, 20

62 Fed. Reg. 38,652 (July 18, 1997) ..... *passim*

CROSS-PETITION FOR WRIT OF CERTIORARI

Cross-petitioners respectfully petition for a writ of certiorari to review the judgment of the United States Court of Appeals for the District of Columbia Circuit in this case.

DECISIONS BELOW

The decision of the court of appeals is published at *American Trucking Assns. v. USEPA*, 175 F.3d 1027 (D.C. Cir. 1999), Mass. App. 1,[1] *rehearing granted in part, denied in part*, 195 F.3d 4 (D.C. Cir. 1999), Mass. App. 64. The agency rule at issue in this cross-petition is published at 62 Fed. Reg. 38,652 (July 18, 1997).

BASIS FOR JURISDICTION

The date the judgment or order sought to be reviewed was entered. The D.C. Circuit's judgment or order sought to be reviewed was entered on May 14, 1999, Mass. App. 1, and rehearing was granted in part and denied in part on October 29, 1999. Mass. App. 64.

The date of any order respecting rehearing. Rehearing was granted in part and denied in part on October 29, 1999. Rehearing en banc was denied that same date, with five of the nine participating judges voting for rehearing.

---

[1] Citations to "Mass. App." refer to the appendix filed by the Commonwealth of Massachusetts and the State of New Jersey with their petition for certiorari.

Express reliance on Rule 12.5. This cross-petition for a writ of certiorari is filed under Supreme Court Rule 12.5. The petitions for certiorari in connection with which this cross-petition is filed were docketed on January 28, 2000 (*Browner v. American Trucking Ass'ns*, no. 99-1257; *Commonwealth of Massachusetts v. American Trucking Ass'ns*, no. 99-1263; and *American Lung Ass'n v. American Trucking Ass'ns*, no. 99-1265).

The statutory provision conferring certiorari jurisdiction on this Court. 28 U.S.C. § 1254.

CONSTITUTIONAL PROVISIONS, STATUTES AND REGULATIONS INVOLVED

Constitution: U.S. Constitution, Article 1, § 1.

Statutes: Clean Air Act §§ 108, 109, 169A, 302, 307; 42 U.S.C. §§ 7408, 7409, 7491, 7602, 7607.

Regulation: 40 C.F.R. § 50.7.

The full text of these provisions are contained in the appendix to the petition of the Commonwealth of Massachusetts and the State of New Jersey (Mass. App.), and are not repeated here, except for CAA §§ 169A and 302(h), which are set forth *infra*, App. 1-3.

STATEMENT OF THE CASE

Petitioners Citizens for Balanced Transportation, Richard Romero (on behalf of himself and his minor son, Richard Romero, Jr.), David Matusow, Brian McCarthy,

James Bassage and Michael Gregory ("CBT") petitioned below for remand to the United States Environmental Protection Agency ("EPA") of the 24-hour primary and secondary national ambient air quality standards (NAAQS) for fine particles (FP), i.e., particles less than 2.5 micrometers in diameter (PM 2.5). CBT challenged the primary standard, required by section 109(b)(1) of the Clean Air Act ("CAA" or "Act") to protect public health with an adequate margin of safety, because it is set so high that it fails to prevent, even in the Nation's most polluted cities, the daily concentrations of fine PM that EPA found to be associated with the incidence of thousands of premature deaths and tens of thousands of cases of serious disease each year. CBT challenged the identical secondary standard, required by CAA § 109(b)(2) to protect public welfare from "any known or anticipated adverse effects," because EPA admitted that the level of the standard would continue to allow adverse effects on at least one aspect of the public welfare enumerated by the Act – visibility.

The court of appeals' decision is completely silent regarding petitioners' claim that the primary NAAQS fails to protect public health from at least half of the many thousands of premature deaths and other serious adverse health effects that EPA attributed to PM2.5 exposures. Silence appears to be the only option by which the panel could reject CBT's claim without reversing 20 years of judicial precedent requiring that NAAQS be adequate to prevent pollution-related mortality and other adverse health effects.

The court rejected CBT's challenge to the secondary standard by squarely contradicting the statutory directive that "any [ ] secondary [ ] standard . . . shall specify a level of air quality [that] is requisite to protect public welfare from any known or anticipated adverse effects . . . ," concluding instead "that the Congress did not intend the secondary NAAQS to eliminate all adverse visibility effects . . . ." Mass. App. 52.

The court remanded all the PM standards to EPA on the ground that Congress failed to supply an intelligible principle to govern standard-setting under section 109 of the Act. The EPA, American Lung Association, Commonwealth of Massachusetts and the State of New Jersey have petitioned for certiorari to reverse the court of appeals' inappropriate application of the nondelegation doctrine in these cases. CBT agrees with those petitions, but files this cross-petition asking for a writ to correct the court of appeals' failure to apply the appropriate standard for review under CAA § 307(d) that would have required the Court to remand EPA's 24-hour PM2.5 NAAQS as arbitrary and capricious and not consistent with law.

I. Adverse Health Effects Of Fine Particles Are Not Prevented.

The importance of EPA's failure to set a 24-hour PM 2.5 NAAQS adequate to prevent the adverse health effects EPA attributed to daily concentrations of FP found in most U.S. cities is best demonstrated by the high PM-related death toll the Administrator estimated would continue after the new NAAQS are met. In two cities (Philadelphia and Los Angeles), EPA performed a

comprehensive Risk Assessment ("RA"),[2] including an assessment of residual PM-related mortality and other adverse health effects that would be expected to remain after meeting both new PM2.5 standards (annual and 24-hour).[3] The RA demonstrated that compliance with the 65 μg/m3 24-hour standard would continue to allow a central estimate of 1,200 and 970 PM-related excess deaths in Los Angeles and Philadelphia, respectively.[4] In marked contrast, the RA showed a daily standard set at 25 μg/m3 would reduce the estimated incidence of PM2.5-related mortality in Los Angeles to approximately 120 deaths/year and in Philadelphia to about 110 deaths/year. JA(PM) 2100, 2102.[5]

---

[2] *A Particulate Matter Risk Assessment for Philadelphia and Los Angeles*, (Abt Associates, Inc. prepared for U.S. EPA, Office of Air Quality Planning and Standards, July 1996, revised November 1996), pp. 113-116; JA(PM) 3370-3373 [see footnote 5].

[3] 40 C.F.R. § 50.7(a)(1), Mass. App. 111.

[4] The RA results are also summarized in *Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information* – OAQPS Staff Paper (Office of Air Quality Planning and Standards, US EPA, July 1996) ("Staff Paper"), Tables VI-12b and VI-13b; JA(PM) 2100, 2102. EPA discusses the residual mortality expected to remain after implementation of the proposed NAAQS at 61 Fed. Reg. 65,651; JA(PM) 132, but only reports the deaths attributed to short-term exposures. The estimates quoted here are for total mortality associated with both short-term and long-term exposures because, according to EPA's Risk Assessment as reported in the Staff Paper; JA(PM) 2105, mortality from both types of exposure would be prevented by the emission reductions necessary to meet 24-hour standards.

[5] In accordance with Supreme Court Rule 12.7, this cross-petition cites to the joint appendix relating to particulate matter compiled in the court of appeals as "JA(PM)."

EPA Staff's review of the RA concluded that the 65 μg/m3 24-hour standard provides no incremental protection beyond the annual standard in either Philadelphia or Los Angeles. In Philadelphia, EPA Staff found that the 15μg/m3 annual standard "is estimated to result in reductions in . . . health risks (about 14-20% reduction for effects associated with short-term exposures and about 28% reduction for mortality associated with long-term exposure)." JA(PM) 2105. By comparison, "attaining a 25 μg/m3 24-hr standard in Philadelphia County is estimated to result in the largest risk reductions (e.g., about 69-73% reduction in mortality and other health effects associated with short-term exposures and 100% reduction in mortality associated with long-term exposures to PM)." *Id.* Thus a 25 μg/m3 24-hour standard would reduce estimated total PM2.5-related premature deaths in Philadelphia by 91% (from 1,290 (±490) to 110 (±40)). The corresponding health benefit from a 25 μg/m3 standard in Los Angeles would be a reduction in PM2.5-related mortality of about 95% (from 2,820 (±1,040) to 120 (+100/-20)) compared to about a 50% reduction in mortality from the standard EPA adopted. JA(PM) 2102, 2105-06.

Extrapolating these results to cities across the Nation, EPA's choice of standards means that many thousands will die prematurely and many tens of thousands will suffer other serious health effects each year from the effects of FP exposures that would be prevented if the Administrator had promulgated a 24-hour standard at 25 μg/m3.

A. EPA Is Silent About True Public Health Impact.

The Administrator provided no candid discussion of the results of her RA in the final rule, and offered no

rationale for selecting a standard that continued to allow such a high death toll from exposure to PM2.5. Indeed, the Administrator disingenuously dismissed with a single sentence the evidence from her RA showing nearly nine times fewer PM2.5-related deaths with a 24-hour standard at 25 μg/m3 compared to the level chosen: "Because of . . . the decision to set the [annual] level at the lower end of the annual range, there is no need to consider levels in the lower portion of the 24-hour range below the [50 μg/m3] level proposed." JA(PM) 27. This sole explanation for rejecting the enormous public health benefits of a 25 μg/m3 standard was particularly misleading in view of the RA analysis which unequivocally demonstrated that the nine-fold reduction in PM-related mortality would be achieved by the 25 μg/m3 standard after accounting for the health benefits of the 15 μg/m3 annual standard.

Despite commenters' objections to adoption of the ineffective 65 μg/m3 standard, the Administrator failed to "articulate a satisfactory explanation for [her] action including a 'rational connection between the facts found and the choice made.' " *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins.*, 463 U.S. 29, 43 (1983), citing *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962). The Administrator also offered no explanation for how her decision to set standards that continue to allow half or more of the adverse health effects she attributed to FP exposures satisfies her statutory obligation to protect public health with an adequate margin of safety.

EPA's evidence that PM-related deaths will continue to occur at the FP exposure levels allowed by the new

NAAQS is the same evidence that convinced the Administrator "that the current PM10 standards do not adequately protect public health, and that revision of the standards is not only appropriate, but necessary." 62 Fed. Reg. 38,665; JA(PM) 015. The Administrator's decision to set standards that continue to allow half or more of the deaths and other adverse health effects that she found triggered her duty to revise the 1987 NAAQS does not satisfy the congressional command to protect public health. Her failure to offer any explanation for her choice also violates her obligation to undertake reasoned decisionmaking.

B. Nondelegation Doctrine Is Satisfied By Clean Air Act § 109(b), But EPA's Decision Does Not Satisfy The Statutory Mandate To Protect Public Health.

The nondelegation doctrine bars the delegation by Congress of its power to make law. In the case of the Clean Air Act, Congress has fulfilled its constitutional obligation to provide an intelligible principle to guide and control agency decision-making. CBT agrees with, and adopts here the reasons supporting a grant of certiorari to review the panel decision below for the reasons presented by respondents EPA, American Lung Association, the Commonwealth of Massachusetts and the State of New Jersey. But merely reversing the inappropriate application of the nondelegation doctrine in this case is not enough to ensure the full measure of public health protection Congress intended. The Court should also reverse the court of appeal's failure to apply the proper

standard of review which would require the remand of EPA's 24-hour PM2.5 NAAQS.

Congress has established intelligible principles to govern the setting of NAAQS. Section 109(b)(1) directs the Administrator to set national air quality standards "requisite to protect public health" with an "adequate margin of safety." This statutory directive has been parsed and construed on numerous occasions by the D.C. Circuit which is the only court with direct jurisdiction under section 307(b)(1) to review EPA's NAAQS decisions. The governing principles gleaned from 20 years of NAAQS jurisprudence were recently summarized by the court of appeals in *American Lung Ass'n v. EPA*, 134 F.3d 388, 389 (D.C. Cir 1998) (*ALA*):

> [T]aking account of the "preventive" and "precautionary" nature of the act, *Lead Industries Ass'n, Inc. v. EPA*, 647 F.2d 1130, 1155 (D.C. Cir. 1980), the Administrator must then decide what margin of safety will protect the public health from the pollutant's adverse effects – not just known adverse effects, but those of scientific uncertainty or that "research has not yet uncovered." *Id.* at 1153. Then, and without reference to cost or technological feasibility, the Administrator must promulgate national standards that limit emissions sufficiently to establish that margin of safety. See 42 U.S.C. § 7409(b)(1); *American Petroleum Inst. v. Costle*, 665 F.2d 1176, 1181-82 (D.C. Cir. 1981) (describing NAAQS promulgation procedure); *Lead Industries*, 647 F.2d at 1148-50 (in establishing NAAQS, Congress deliberately subordinated economic and technological feasibility concerns to the achievement of public health goals).

> In its effort to reduce air pollution, Congress defined the public health broadly. NAAQS must protect not only average healthy individuals, but also "sensitive citizens" – children, for example, or people with asthma, emphysema, or other conditions rendering them particularly vulnerable to air pollution. Senate Report at 10; *Lead Industries*, 647 F.2d at 1152. If a pollutant adversely affects the health of these sensitive individuals, EPA must strengthen the entire national standard. *Lead Industries*, 647 F.2d at 1153 (NAAQS "must be set at a level at which there is 'an absence of adverse effect' on [ ] sensitive individuals") (quoting Senate Report at 10).

This long history of decisions require that NAAQS at least protect against "known adverse effects," *ALA*, supra, as the minimum level of protection consistent with § 109(b)(1)'s requirement that NAAQS not only protect public health, but do so with an "adequate margin of safety." The margin of safety requirement was added in 1970 to reflect the Nixon Administration's explanation of the National Air Quality Standards Act it proposed to replace the 1967 Air Quality Act: "[A] national air quality standard will be one that protects against the minimum adverse health effect. ***[T]he standards shall be protective of health, which means they must be lesser than the level at which this [adverse effect] was observed. In addition, . . . a margin of safety must be included."[6]

---

[6] Testimony before the Senate Subcommittee on Air and Water Pollution of Dr. John T. Middleton, Commissioner, National Air Pollution Control Administration, HEW (May 27, 1970). *Legislative History of the Clean Air Act of 1970*, pp. 1184-85.

The statutory delegation can therefore be seen as carrying a few explicit, but critical guidelines for decision-making. First, EPA is directed to determine "the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health and welfare which may be expected from the presence of such pollutant in the ambient air, in varying quantities." § 108(a)(2). From this compendium of identifiable effects, EPA must exercise judgment to determine which of these are "adverse effects" when experienced by sensitive populations. To carry out this obligation to "protect[ ] the public from harmful effects requires decisions about exactly what these harms are." *Lead Industries*, at 1152. Then the Agency must determine a "level at which there is 'an absence of adverse effect' on [ ] sensitive individuals." Senate Report at 10, *Lead Industries*, at 1153. Finally, the Administrator has discretion to set a margin of safety to account for health effects which are uncertain with regard to either the probability that they will occur, or whether their severity will be "adverse." Thus the Administrator's task is a mixture of mandatory duties to undertake fact finding and to set standards that protect against known adverse effects, and discretionary judgments about what constitutes an adverse effect and the margin of safety required to protect against suspected, but not fully proven effects.

The contours of EPA's delegated authority described by the court of appeals' prior decisions does not "justify a refusal to reduce levels below those associated with London's 'Killer Fog' of 1952," as the majority characterizes EPA's asserted breadth of its discretion. Mass. App. 10. Nor does it justify a standard that fails to prevent half or

more of the premature deaths and other serious adverse health effects that EPA attributes to FP pollution. CBT agrees with the majority below that for EPA to assert such broad discretion is error, but not because Congress failed to give EPA adequate instructions for standard-setting. Rather, by setting NAAQS that fail to prevent known adverse health effects, or known or anticipated adverse welfare effects, EPA is asserting discretion beyond the boundaries of the authority delegated by Congress. Protection for the health of the American people requires that this Court ensure that the court of appeals requires EPA to act within those bounds.

C. EPA's 24-Hour NAAQS Fails To Prevent Known Adverse Effects.

The errors permeating EPA's approach to setting the 24-hour NAAQS are best demonstrated by comparing the rationale offered by EPA for setting the annual FP NAAQS with the virtually unexplained approach taken to set the 24-hour NAAQS. Judge Tatel's dissent points to EPA's analysis for setting the annual FP standard as an example of "a disciplined decisionmaking process constrained by the statute's directive to set standards 'requisite to protect the public health' based on criteria reflecting the 'latest scientific knowledge'." Mass. App. 57, 59-61. But his favorable analysis of the annual NAAQS decision highlights the flaws in setting the 24-hour NAAQS.

1. Annual NAAQS Prevents Effects Demonstrated At 95 Percent Confidence Interval.

In setting the annual NAAQS, EPA analyzed annual exposure data to identify the annual exposures "in individual cities for which **statistically significant** PM-effects associations are reported . . . " and cities where mean concentrations are "nearly **statistically significant**". 62 Fed. Reg. 38,676; JA(PM) 026. EPA defined "statistically significant results" as those "reported at a 95% confidence level." 61 Fed. Reg. 65,642, n. 8; JA(PM) 123. Based on its conclusion that the lowest annual mean it found to be statistically significant was 16 µg/m3, and the lowest nearly statistically significant annual mean was 11 µg/m3, EPA concluded that it would "plac[e] greatest weight on those studies that were clearly statistically significant," and therefore set the annual NAAQS at 15 µg/m3. *Id.* The Agency then confirmed this approach derived from individual city means by comparing the proposed annual standard with the means reported from the multi-city long-term exposure studies. *Id.* Thus EPA relied upon a comparison of the association of effects observed with annual means, and selected the level to prevent effects shown to be statistically significant at the 95% confidence interval. This level of certainty has been recognized as evidence certifiable as "scientific fact." *Ethyl Corp. v. EPA*, 541 F.2d 1, 28 n.58 (D.C. Cir. 1976).[7] At least EPA provided a rational explanation for

---

[7] As scientific fact, this level of certainty should be treated as evidence of "known adverse effects" that a NAAQS must prevent, although it begs the question why a nearly statistically significant association at the 92% confidence level should not

concluding that the annual standard protects against the adverse effects associated with annual exposures that are "known" to a degree of certainty treated as scientific fact. Whether the result also provides an adequate margin of safety has not been challenged here.

2. 24-Hour NAAQS Allows Adverse Effects Demonstrated At 95 Percent Confidence Level.

But a similar explanation has not been offered for the 24-hour standard. Most of the evidence of mortality and morbidity associated with FP exposures, as well as the most compelling evidence, is associated with "short-term", i.e., one- to two-day, exposures. Here, EPA found statistically significant evidence that daily exposures to FP concentrations well below 65 μg/m3 are clearly harmful, but failed to set NAAQS adequate to prevent the harm.

EPA found more than 60 "community epidemiological studies that evaluated associations between short-term concentrations of various PM indicators and mortality and morbidity endpoints" and "reported positive, statistically significant endpoints." 61 Fed. Reg. 65,646/1; JA(PM) 127. More than 20 of these studies reported "statistically significant positive associations between fine particle concentrations and mortality and morbidity endpoints." *Id.*, 65,649/1; JA(PM) 130.

---

also be prevented either as a known adverse effect or as a highly probable risk justifying the exercise of EPA's discretion to set a margin of safety.

EPA found that the studies described a dose-response relationship between increased daily concentrations of PM2.5 and increased incidence of mortality and morbidity among populations exposed to the higher pollution levels. Referred to as the "relative risk," this correlation was derived from the so-called "core" studies that EPA relied upon to determine that health effects were occurring at levels allowed by the 1987 NAAQS.

In one of these studies, the 1996 critical re-analysis of the Six Cities data, "Is Daily Mortality Associated Specifically with Fine Particles?", Dr. Schwartz notes "that the **day** is the unit of observation in this study." JA(PM) 3060, and "[r]elative risks have been expressed as the percent increase in **daily mortality** . . . associated with each specified increment in particulate air pollution exposure." JA(PM) 3055. Key findings (reported in Table 7) are that **daily FP increases** of only 10 µg/m3 are associated with a 1.5% increase in daily mortality from all causes and a 4% increase in deaths from pneumonia. JA(PM) 3059. All results were reported at the 95% confidence interval. EPA's Staff Paper, at V-63 to V-64, concluded "[t]he estimated increase in daily mortality associated with PM2.5 was consistently positive in all 6 cities (0.8 to 2.2% for a 10 µg/m3 PM2.5 increase) and statistically significant in 3 cities." JA(PM) 2028, 2031.

3. Unregulated Low- To Mid-Concentration Days Represent Most Of The Health Risk.

These adverse health effects associated with 10 µg/m3 increases in daily FP concentrations occur on days with concentrations far below the 65 µg/m3 level set for

the daily standard. Evidence collected by EPA shows that 98% of all daily concentrations in five of the six cities were less than 34 μg/m3 to 46 μg/m3. Koman memo JA(PM) 3508. Indeed, in some of the six cities where daily 10 μg/m3 increases in PM2.5 are significantly associated with increased mortality and disease, even the highest daily reading is below the 65 μg/m3 standard. Day-to-day changes in FP concentrations produce a hundred or more days each year with increases in FP concentrations above the 10 μg/m3 level shown to cause statistically significant increases in adverse health effects. A standard at 65 μg/m3 cannot prevent these health effects.

EPA acknowledged the public health importance of these many days with pollutant levels far below the standard when she concluded "that most of the aggregate risk associated with short-term exposures likely results from the large number of days during which the 24-hour average concentrations are in the low- to mid-range, below peak 24-hour concentrations." 61 Fed. Reg. 65,652/3; JA(PM) 133. In her final rule, she offered no explanation for choosing a 24-hour standard that provides virtually no protection "from the large number of days at lower to mid-range values **above the mean**" that the Administrator found to be responsible for "most of the annual aggregate risk associated with short-term exposures." 62 Fed. Reg. 38,670/3; JA(PM) 020. Again, EPA "failed to offer the rational connection between facts and judgment" that is necessary to "pass muster under the arbitrary and capricious standard." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins.*, 463 U.S. at 56.

4. Unregulated Single-Day Exposures Causes Adverse Effects.

Another major contradiction between facts found and the standard chosen is her decision to select the 98th percentile form of the standard that leaves the seven most polluted days of the year unregulated. The 65 μg/m3 standard only applies to 98% of the daily measurements made each year at a monitor. 40 C.F.R. § 50.7(c). The concentrations measured on the most polluted 2% of the days each year (i.e., 7 daily concentrations in any year when 350 or more days are monitored or the statistical equivalent of 7 days when fewer than 350 days are monitored) are not subject to the standard. For daily monitored contributions in the record, it appears that sites with 98th percentile concentrations at 65 μg/m3 will typically have 7 higher days ranging from 75 μg/m3 to 90 μg/m3.

EPA acknowledged that "higher 24-hour concentrations, including peaks above 70 μg/m3, clearly contribute more mortality per day than low- to mid- range concentrations . . . ." 61 Fed. Reg. 65,652/3; JA(PM) 133. EPA emphasized the importance of these individual 24-hour exposures for the standard-setting decision by concluding that adverse health effects

> including premature mortality and increased hospital admissions, have generally been reported with same-day, previous day, or longer lagged single-day concentrations, although some studies have reported stronger associations with multiple-day average concentrations. [T]he Administrator recognizes that a 24-hour PM2.5 standard can effectively protect against

> episodes lasting several days, since attainment of such a standard would provide protection on each day of a multi-day episode, while also protecting sensitive individuals who may experience effects after even a single day of exposure.

62 Fed. Reg. 38,668; JA(PM) 018. The Administrator's finding that the adverse health effects EPA attributes to PM2.5 occur after single-day exposures makes clear that the NAAQS must prevent such daily exposures in order to prevent the adverse health effects of PM2.5.

EPA acknowledged that the need for protection from single-day exposure events is especially great in areas where the "annual standard cannot be expected to offer an adequate margin of safety against the effects of all potential short-term exposures in areas with strong local or regional sources;" 62 Fed. Reg. 38,676/3; JA(PM) 026; and "situations where the daily peaks and annual averages are not consistently correlated." *Id.*, 38,669; JA(PM) 019. Examples include western cities where the rural air supply is very clean, and where the clean days in large cities are therefore much cleaner than in the East, but where during stagnation periods the dirty days can be just as polluted as high-pollution days in eastern cities. Thus evidence in the record suggests most western cities (except Los Angeles) expect to receive no protection from the annual standard against the health effects caused on high pollution days because annual concentrations (which average clean and dirty days together) will meet the annual NAAQS. PM2.5 data from western cities in the record indicate EPA's 65 μg/m3 daily standard will require no reductions in daily FP levels in any western

city. Yet many days per year pollutant concentrations are 10, 20 or even 40 μg/m3 above background levels, and therefore more than high enough to reach levels that EPA found to be associated with excess deaths and other adverse health effects. Even Los Angeles is not expected to exceed the 24-hour standard on the most polluted days after attaining the 15 μg/m3 annual NAAQS, although data from EPA's Risk Assessment for Los Angeles indicate that 21% of the days each year are expected to continue reaching the low-formed-range levels above the mean that EPA found account for most of the aggregate risk of increased mortality and morbidity.

There is no rational connection between a standard that theoretically allows 7 daily concentrations as high as 250 μg/m3 each year with the Administrator's conclusions that adverse health effects, including premature death, occur after single day exposures, and that peak daily exposures above 70 μg/m3 represent the greatest daily risk.

D. EPA Articulates No Rational Basis For The 24-Hour Standard.

In the face of EPA's Staff Paper conclusion that even 10 μg/m3 increases in daily FP concentrations are large enough to cause statistically significant increases in deaths and other adverse health effects,

- the Administrator's finding that protection from daily concentrations is needed because single day events cause premature death and serious disease for sensitive individuals,

- the Administrator's conclusion that most of the aggregate risk is caused by low- to mid-range daily concentrations above the annual means, and

- the mathematical reality that the annual standard cannot effectively prevent daily peaks above levels associated with adverse effects,

the Administrator has provided no rational basis for the final 24-hour standard. Choosing to back away from both the 50 μg/m3 NAAQS she proposed and the 25 μg/m3 alternative she expressly considered, the Administrator offered no explanation of the relationship between the standard chosen and the evidence in the epidemiological studies that virtually all observed mortality and morbidity effects associated with **increased daily** exposures occur at concentrations below the 65 μg/m3 level of the 24-hour standard. Thus her standard provides no protection against the mortality and other effects of **daily** exposures she found based on the epidemiological studies.

Instead of offering any rational analysis of the public health consequences of her choice, the Administrator baldly asserted

> that any standard within this range [50 to 65] would provide some margin of safety . . . [T]he Administrator has concluded that a 24-hour standard at the level of 65 μg/m3 would provide an effective limit in the role as a supplement to the annual standard.***Accordingly, after weighing these factors in light of the scientific uncertainties, the Administrator believes that a 98th percentile 24-hour PM2.5 standard of 65 μg/m3 would provide an adequate margin of

> safety against infrequent or isolated peak concentrations that could occur in areas that attain the annual standard of 15 μg/m3.

Id. Unlike the rationale she offered as the basis for selecting the annual standard that at least explained why she believed the annual exposures allowed by the standard were below the levels shown to be statistically significantly associated with adverse health effects, her discussion of the 24-hour standard was completely devoid of any analysis of the statistical evidence showing adverse health effects from **daily** exposures at 20, 30 and 40 μg/m3 – far below 65 μg/m3. She did not even attempt to reconcile her decision with her conclusion summarizing the effects data "that most of the aggregate risk associated with short-term exposures likely results from the large number of days during which the 24-hour average concentrations are in the low- to mid-range, below peak 24-hour concentrations." 61 Fed. Reg. 65,652; JA(PM) 133.

The Administrator provided no explanation for how her 24-hour standard could possibly satisfy her minimum statutory obligation to ensure that NAAQS protect against FP exposures "known" to be associated with adverse health effects. The rationale she relied upon to justify the annual standard would require the 24-hour standard to be set below the level where there is demonstrated a statistically significant association with increased mortality and morbidity. In marked contrast to the annual FP standard, she made no claim that known adverse effects associated with daily exposures would be prevented.

II. EPA Established Secondary PM2.5 NAAQS At Levels That Fail To Protect Against Adverse Visibility Effects.

Secondary standards must be adequate "to protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air." CAA § 109(b)(2), 42 U.S.C. § 7409(b)(2). The Clean Air Act defines effects on welfare to include effects on "visibility." CAA § 302(h), 42 U.S.C. § 7602(h). Congress believed that secondary standards were "especially important because some pollutants could have serious effects on the environment at levels below those where health effects occur." JA(PM) 4264.

EPA acknowledges that visibility impairment is an "important," "significant," and "adverse" public welfare impact of PM pollution. 62 Fed. Reg. at 38,680; JA(PM) 30; Responses to Significant Comments on the 1996 Proposed Rule on the NAAQS for Particulate Matter (July 1997) ("RTC") 92, 94; JA(PM) 306, 308. According to EPA, the scientific evidence of these impacts is "unequivocal." RTC 92; JA(PM) 306. PM emissions from human activity are a "significant" cause of impaired visibility in most parts of the country. Staff Paper; JA(PM) 2177. Visibility impairment due to PM pollution occurs virtually all the time at most national park and wilderness monitoring stations. National Research Council, Protecting Visibility in National Parks (1993) 1; JA(PM) 4277. Average visual range in most of the western United States is approximately one-half to two-thirds of what it would be without this pollution. *Id.* In the east, visual range is about one-fifth of what it would be under natural conditions. *Id.*

In the rulemaking at issue here, EPA set the secondary PM2.5 NAAQS at levels identical to the primary NAAQS. The Agency conceded that the primary NAAQS are not intended to address visibility impairment and would not be adequate to address visibility throughout the nation. EPA stated that although the adopted NAAQS would result in improved visibility in a number of eastern cities, they would produce "little or no change in the western United States except in and near certain urban areas." 62 Fed. Reg. at 38,681; JA(PM) 41. The Agency further conceded that "quantitative information demonstrat[es] how fine particle levels at and below the level of the PM2.5 primary standards result in known or anticipated adverse effects on visibility," and that these effects are "adverse." RTC 94; JA(PM) 308.

EPA attempted to justify its failure to set adequate secondary NAAQS by stating that visibility impairment allowed by the new standards was more appropriately addressed by other programs. The Agency specifically cited a special program that it is developing under CAA § 169A to address visibility problems in certain national parks and wilderness areas. 62 Fed. Reg. at 38,681; JA(PM) 31. The U.S. Department of Interior (DOI) and other commenters pointed out that this "Regional Haze" program would only apply to about 13 percent of all national parks, and would not apply at all to cities and other areas suffering visibility impairment. DOI Letter; JA(PM) 4263. EPA responded that some of these areas might benefit from the new NAAQS, and others should

rely on local programs to address their visibility problems. 62 Fed. Reg. at 38,681-83; JA(PM) 31-33.[8]

In the court below, CBT challenged EPA's decision to set secondary NAAQS at the levels of the primary health standards rather than at levels that protect public welfare from adverse visibility effects, despite the Agency's admission that the primary NAAQS would not prevent these effects. Although the court declined to reach the thrust of CBT's challenge to the secondary standard in light of its remand of the primary NAAQS, the court did address the question of statutory interpretation raised by CBT, i.e., whether the Clean Air Act requires EPA to remedy all adverse visibility effects through promulgation of the secondary NAAQS, or whether some of those effects may be remedied through other means. The court of appeals incorrectly agreed with EPA that the agency had discretion to rely upon the regional haze program to mitigate visibility impairment caused by PM2.5. Mass. App. 52.

---

[8] EPA also cited regional differences in background PM levels, average relative humidity, and other variables that affect visibility as justification for its failure to address visibility. 62 Fed. Reg. at 38,680-81; JA(PM) 30-31. The court of appeals did not rely on these arguments to uphold EPA's interpretation of the Clean Air Act.

REASONS FOR GRANTING THE WRIT

I. THOUSANDS OF LIVES AND THE HEALTH OF MANY TENS OF THOUSANDS MORE ARE AT STAKE.

This is a case where the American people, especially millions of children, the elderly and those with existing cardiopulmonary disease, are at significant risk of suffering increased incidence of severe disease symptoms or premature death. EPA has not performed its assigned premature statutory responsibility to protect the public from the largest portion of this risk, and the court of appeals has completely abdicated its responsibility to protect the public by requiring faithful implementation of the law.

No other court beside this Court will have an opportunity to correct this wrong to the American people. The practicalities are such that citizens cannot themselves sue for relief from ubiquitous contamination of the public air supply caused by dispersed pollution emanating from nearly 200 million motor vehicles and tens of thousands of stationary sources. The Clean Air Act provides their only remedy. But the remedial mechanisms of the Act will never be triggered if the air quality standards are not set at levels adequate to protect public health.

II. THE AGENCY ERROR HERE IS GLARING AND UNCONSCIONABLE.

EPA's 24-hour PM2.5 NAAQS decision offers a textbook example of an agency decision so riddled with unexplained contradictions, so lacking in a rational connection between the facts found and the choice made, and so significant with regard to its national impact on public

health that it fails to satisfy the most basic test of reasoned decisionmaking – the obligation to "articulate a satisfactory explanation for its action. . . . " *Motor Vehicle Mfrs. Ass'n, supra.* The failure of the court of appeals to demand such a satisfactory explanation, thereby depriving the public of protection from a well-proven public health threat, is the central error in the decision below. This cross-petition seeks a writ addressed to the proper standard for review that the court of appeals should have applied because the real errors in EPA's primary NAAQS decision were not addressed below.

Recently, the court of appeals properly demanded a reasoned explanation in another NAAQS decision, and remanded to EPA.

> Where, as here, Congress has delegated to an administrative agency the critical task of assessing the public health and the power to make decisions of national import in which individuals' lives hang in the balance, that agency has the heaviest of obligations to explain and expose every step of its reasoning. For these compelling reasons, we have always required the Administrator to "cogently explain why [she] has exercised [her] discretion in a given manner." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 49 (1983).

ALA v. EPA, 134 F.3d at 392. For this reason, to wit, the court's failure to demand reasoned decision-making, not the lack of an intelligible statutory principle, the writ should be granted and the decision below vacated and remanded.

EPA's 24-hour primary PM2.5 standard must also be remanded in order to ensure that the American people

receive the full measure of public health protection required by Congress. The remand should direct EPA to remedy its failure to set a primary standard that protects the public from FP pollution levels that EPA found to be associated with premature death and other serious adverse effects. Unless the standard prevents such adverse health effects, it does not satisfy the directive of § 109(b)(1) to protect public health with an adequate margin of safety.

III. THE COURT OF APPEALS' RULING CONCERNING THE SECONDARY PM2.5 NAAQS PRESENTS AN IMPORTANT QUESTION THAT WAS ERRONEOUSLY DECIDED BELOW AND SHOULD BE REVIEWED BY THIS COURT.

The court of appeals clearly erred in holding that EPA may rely on the regional haze program as a surrogate for performing its statutory duty to set secondary NAAQS at levels adequate to protect against adverse visibility effects. First, by allowing EPA to do so, the court violated the basic principle of statutory construction that where Congress has spoken in plain terms, the language must be regarded as conclusive. *Negonsott v. Samuels*, 507 U.S. 99, 104 (1993). The plain language of CAA § 109(b)(2) requires the setting of secondary NAAQS whenever "requisite to protect the public welfare from **any known or anticipated adverse effects** associated with the presence of such air pollutant in the ambient air." 42 U.S.C. 7409(b)(2) (emphasis added). Here, a secondary NAAQS is "requisite" because EPA determined that "adverse effects" on visibility, one of the specifically listed welfare effects requiring protection, are occurring as a result of fine particles in the ambient air.

See CAA § 302(h), 42 U.S.C. § 7602(h). In this context, the word "any" clearly indicates that **all** impacts adverse to public welfare must be addressed by the secondary standard. *See Johnson v. S.E.C.*, 87 F.3d 484, 487 (D.C. Cir. 1996) (courts assume Congress intends words to carry their ordinary, common meaning). The statute provides no exceptions for effects that may be addressed through other programs, and the court of appeals should not have read such an exception into the Act.

Second, the court of appeals failed to consider the narrow scope of the regional haze program, which addresses visibility issues in only 69 Class I national park and wilderness areas in 36 states. DOI Letter; JA(PM) 4263. It is pure speculation for EPA or a court to suppose that the entirety of these states will benefit from the program to the extent of eliminating all adverse visibility effects. Moreover, there is absolutely no evidence in the record to support EPA's assumption that the regional haze program will eliminate adverse effects on visibility in the 14 states exempted entirely from this program. The more likely scenario is that residents of these states will derive no benefit whatsoever from the program, or will experience only a *de minimis* benefit that fails to remedy localized visibility impairment. As a result, residents of exempted states will have nothing to protect them against adverse visibility effects but the secondary NAAQS, a suite of standards that EPA concedes fall far short of the mark. This is directly contrary to the purpose of the 1970 Clean Air Act amendments, which were enacted to require "national" standards to remedy the failure of the states to establish an adequate level of protection nationwide.

Third, the court of appeals disregarded clear differences in purpose between the national secondary air quality standard, which requires minimum protection nationwide, and the regional haze program. The national standard is, as its name implies, designed to set an absolute target value for ambient air quality nationwide. It is only required to eliminate those impacts that are "adverse" to the public welfare. The goal of the regional haze program, on the other hand, is to eliminate **any** visibility impairment from manmade pollution in Class I areas. CAA § 169A(a)(1), 42 U.S.C. § 7491(a)(1). Unlike the secondary NAAQS, the regional haze program does not invite EPA to make a judgment about whether visibility impairment is "adverse," but the program is limited by cost and feasibility considerations. *See* CAA 169A(g), 42 U.S.C. § 7491(g). As a result, the program aims higher than the NAAQS, but it also contains more limitations and provides no assurance that adverse effects will be eliminated.

In sum, the most plausible interpretation of the relationship between these provisions is that Congress did not intend the regional haze program, enacted in 1977 and amended in 1990, to act as a surrogate for the secondary NAAQS, which have been required since 1970. Nor can the regional haze program be effective as a surrogate in many parts of the nation. The program's purpose is limited to providing supplemental benefits beyond the baseline protection afforded by the secondary NAAQS, but only for Class I areas. Thus, EPA is still required to establish secondary NAAQS to address adverse visibility effects across the nation without regard to any benefits that may be provided by the regional haze program. This will not result in duplicative control programs because

the states that are required to implement regional haze strategies may also use those strategies to achieve the secondary NAAQS. Unlike the court of appeals' interpretation, this reading of the Act gives "consistent and harmonious effect" to CAA §§ 109 and 169A, and should be adopted by the Court. *See Alabama Power Co. v. U.S. E.P.A.*, 40 F.3d 450, 455 (D.C. Cir. 1994).

CONCLUSION

The conditional cross-petition for a writ of certiorari should be granted for the foregoing reasons.

DATED: February 28, 2000.

Respectfully submitted,

ROBERT E. YUHNKE*
2910 County Road 67
Boulder, CO 80303
(303) 499-0425

JENNIFER B. ANDERSON
TIMOTHY M. HOGAN
ARIZONA CENTER FOR LAW IN THE PUBLIC INTEREST
202 E. McDowell Rd., Ste. 153
Phoenix, AZ 85004-4533
(602) 258-8850

Counsel for Cross-Petitioners Citizens for Balanced Transportation, et al.

**Counsel of Record*

ADDITIONAL STATUTORY PROVISIONS

42 U.S.C. § 7491. Visability protection for Federal class 1 areas

(a) Impariment of visibility; list of areas; study and report

(1) Congress hereby declares as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade pollution.

(2) Not later than six months after August 7, 1977, the Secretary of the Interior in consultation with other Federal land managers shall review all mandatory class I Federal areas and identify those where visibility is an important value of the area. From time to time the Secretary of the Interior may revise such identifications. Not later than one year after August 7, 1977, the Administrator shall, after consultation with the Secretary of the Interior, promulgate a list of mandatory class I Federal areas in which he determines visibility is an important value.

(3) Not later than eighteen months after August 7, 1977, the Administrator shall complete a study and report to Congress on available methods for implementing the national goal set forth in paragraph (1). Such report shall include recommendations for –

(A) methods for identifying, characterizing, determining, quantifying, and measuring visibility impairment in Federal areas referred to in paragraph (1), and

(B) modeling techniques (or other methods) for determining the extent to which manmade air pollution may reasonably be anticipated to cause or contribute to such impairment, and

(C) methods for preventing and remedying such manmade air pollution and resulting visibility impairment.

Such report shall also identify the classes or categories of sources and the types of air pollutants which, alone or in conjunction with other sources or pollutants, may reasonably be anticipated to cause or contribute significantly to impairment of visibility.

(4) Not later than twenty-four months after August 7, 1977, and after notice and public hearing, the Administrator shall promulgate regulations to assure (A) reasonable progress toward meeting the national goal specified in paragraph (1), and (B) compliance with the requirements of this section.

* * *

(g) Definitions

For the purposes of this section –

(1) in determining reasonable progress there shall be taken into consideration the costs of compliance, the time necessary for compliance, and the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements;

* * *

42 U.S.C. § 7602. Definitions

* * *

(h) All language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants.